

## REFERENCE CELLS FOR TCCT BASED MEMORY CELLS

### Abstract of the Disclosure

[00050] A reference cell produces a reference current that is about half of the current produced by a memory cell. The reference cell is essentially the same as the memory cell with an additional current reduction device that can be a transistor. Adjusting a reference voltage applied to the transistor allows the reference current to be varied. A control circuit to produce the reference voltage includes dedicated memory and reference cells and a feedback circuit that compares the two cells' currents. The feedback circuit applies the reference voltage to the reference cell of the control circuit and adjusts the reference voltage until the current from the reference cell is about half of the current from the memory cell. The reference voltage is then applied to other reference cells in a memory array.